

3/137/61/000/010/049/056  
A006/A101

AUTHOR: Gol'dshteyn, M.Ye.

TITLE: Hard wear-resistant nickel plating

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 55, abstract  
10I383 (V sb. "Povysheniye iznosostoykosti i sroka sluzhby mashin.  
v. 2", Kiyev, AN UkrSSR, 1960, 206 - 213)

TEXT: A high-speed hard nickel-plating electrolyte was developed having the following composition (in g/l):  $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$  180 - 220,  $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$  25 - 35;  $\text{H}_3\text{PO}_4$  30 - 40; and  $\text{NaH}_2\text{PO}_2$  5 - 10; pH is 1.0 - 2.5. Operational conditions are: temperature 75 - 90°C;  $D_c$  - 8 to 12 amp/dm<sup>2</sup>. The Ni-P coating obtained contains 9 - 15% P.  $R_c$  of the coating is 57. Heat treatment at 300 - 400°C increases the wear resistance of the coating. The rate of deposition of the Ni-P coating varies within 0.06 - 0.1 mm/hour. The throwing power of the electrolyte is better for hard nickel than chrome-plating.

Ye. Layner

[Abstracter's note: Complete translation]

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DRITOV, L.A., inzh.; KALYAZHNOV, V.A., inzh.; GOL'DSHTEYN, M.Ye.

Parallel operation of mercury-arc rectifier units with and  
without commutator devices. Prom.energ. 17 no.10:15-18 0  
'62.

(MIRA 15:9)

(Mercury-arc rectifiers)

DRITOV, Leonid Aleksandrovich, *inzhener-issledovatel*,  
inzhener-issledovatel'

Analysis of the parallel operation of dynamically controlled  
mercury rectifiers with inductive current dividers. Izv. vys.  
ucheb. zav.; elektromekh. 6 no.9:1084-1092 '63. (MIRA 16:12)

1. Chelyabinskiy politekhnicheskij institut.

L 15564-63 EWT(m)/EMP(q)/BDS AFPTC/ASD Par JD/HW/JIT(IJP)  
ACCESSION NR: AP3002847 S/OL26/53/014/006/0890/0894

AUTHORS: Lyubarskiy, I. M.; Gol'dshteyn, M. Ye.

TITLE: Study of phosphor nickel wear-resisting coatings

SOURCE: Fizika metallovedeniya, v. 15, no. 6, 1967, 890-892

TOPIC TAGS: P-Ni alloy, wear resistance, friction coefficient

ABSTRACT: The structure and physical properties of the P-Ni coatings with respect to their phosphorus content have been studied. Hard phosphor nickel alloys were precipitated electrolytically on different metals, and the coating toughness and the friction coefficient were evaluated. The results showed that an increase in P content increases hardness. At the P content of 1.2-1.5% the hardness reached the value of 57.3 Rockwell units and remained constant during a further increase in P. One hour's heating at 200-400C increased the sample hardness by approximately 10 Rockwell units. The heating of cast iron and steel specimens covered by P-Ni alloy (low in P) to a temperature of 250C decreased considerably the friction coefficient of the coating, making it less than that of chromium. The magnitude of the coefficient did not change with load variation. The wear resistance of chromium and P-Ni coatings on cast iron and hardened steel is about the same. The electrodeposition of P-Ni with 4.5% of P resulted in a crystalline coating with the structure of

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L 15564-63

ACCESSION NR: AP3002847

an oversaturated solid solution on a Ni base; the same deposition with 4.5 to 14.6% of P resulted in an oversaturated "amorphous" solution. The authors conclude that the increase in hardness, the decrease in friction coefficient, and a better resistance to wear (observed after thermal treatments) are determined by the aging of P-Ni alloys. We express our gratitude to L. S. Palatnik for valuable advice and assistance in the investigation." Orig. ext. has: 2 figures.

ASSOCIATION: Zavod transportnogo mashinostroyeniya im. V. A. Haly'sheva, Khar'kov  
(Vehicle Plant)

SUBMITTED: 25Aug63

DATE ACQ: 23Jul63

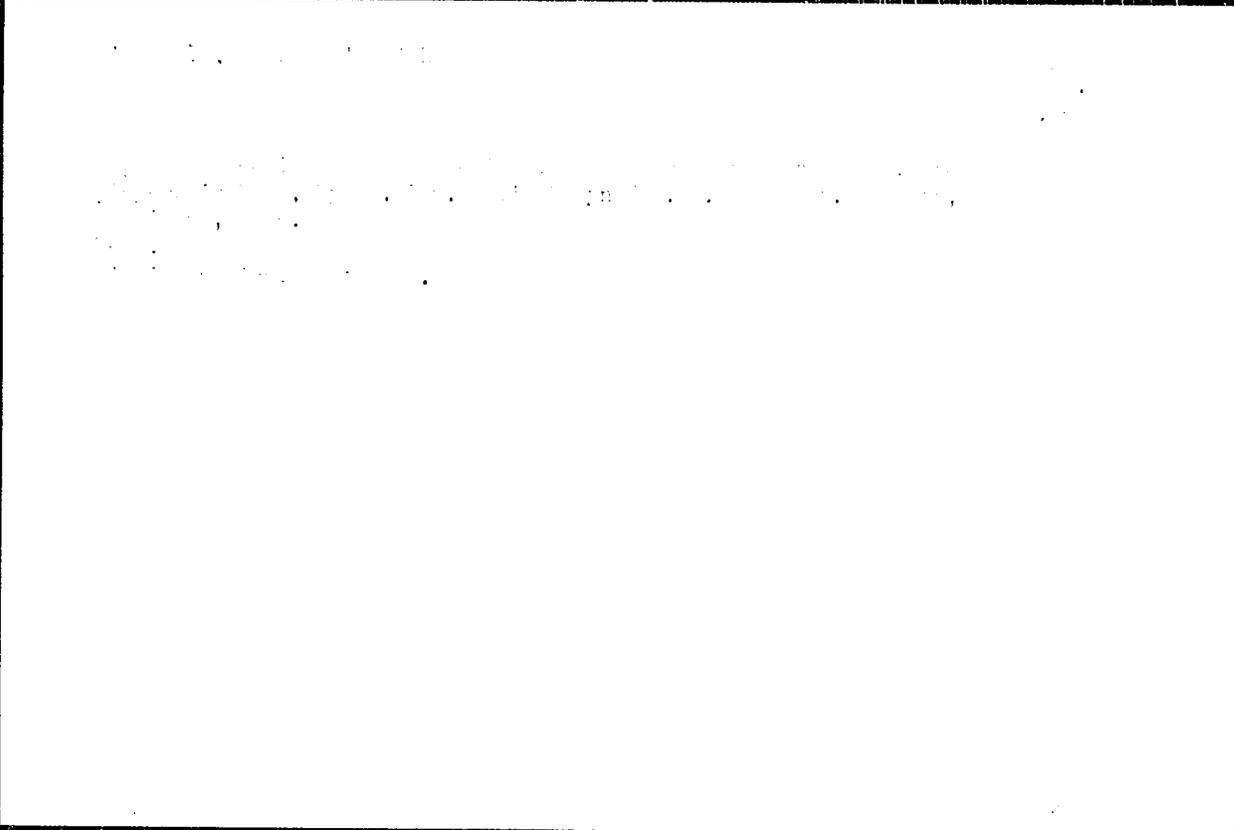
ENCL: 00

SUB CODE: ML

NO REF SCV: 004

OTHER: 003

Card 2/2



BEKKER, L.A.; GOL'DSHTEYN, M.Yu., red.; SAMSONOV, V.M., red.izd-va;  
SHLIKHT, A.A., tekhn.red.

[Tables for calculating workers' and employees' wages and state  
social insurance payments] Tablitsy dlia raschetov s rabochimi  
i sluzhashchimi po zarabotnoi plate i gosudarstvennomu sotsial'-  
nomu strakhovaniu. Moskva, Izd-vo kommun.khoz.RSFSR, 1958.

307 p.

(Wages)

(Insurance, Social)

(MIRA 12:3)

GOL'DSHTEYN, Mark Yur'yevich; KOROTKOV, Vladimir Stepanovich; NOVOSPASSKIY,  
V.V., red.; RAKOV, S.I., tekhn.red.

[Guaranteed and compensatory payments to workers and employees]  
Garantiinnye i kompensatsionnye vyplaty rabochim i sluzhashchim.  
[Moskva] Izd-vo VTsSPS Profizdat, 1957. 92 p. (MIRA 11:2)  
(Wages)

GOL'DSHEYN, Mark Yul'yevich; KOROTKOV, Vladimir Stepanovich;  
BODZRSKOVA, N.M., red.; SHCHEDRINA, N.L.

[Work and rest time of workers and employees in the U.S.S.R.]

Рабочее время и время отдыха рабочих и служащих в

СССР. Москва, Gos.izd-vo iurid.lit-ry, 1959. 84 p.

(MIRA 12:11)

(Hours of labor)

(Vacations, Employee)

GOL'DSHTEYN, Mark Yul'yovich; KOROTKOV, Vladimir Stepanovich; ZHKLUDKOV,  
A.A., red.; GOLICHENKOVA, A.A., tekhn.red.

[Guaranteed and compensatory payments to workers and employees]  
Garantiinye i kompensatsionnye vyplaty rabochim i sluzhashchim.  
Izd.2., ispr. i dop. Moskva, Izd-vo VTsSPS Profizdat, 1960.  
116 p.

(WU308)

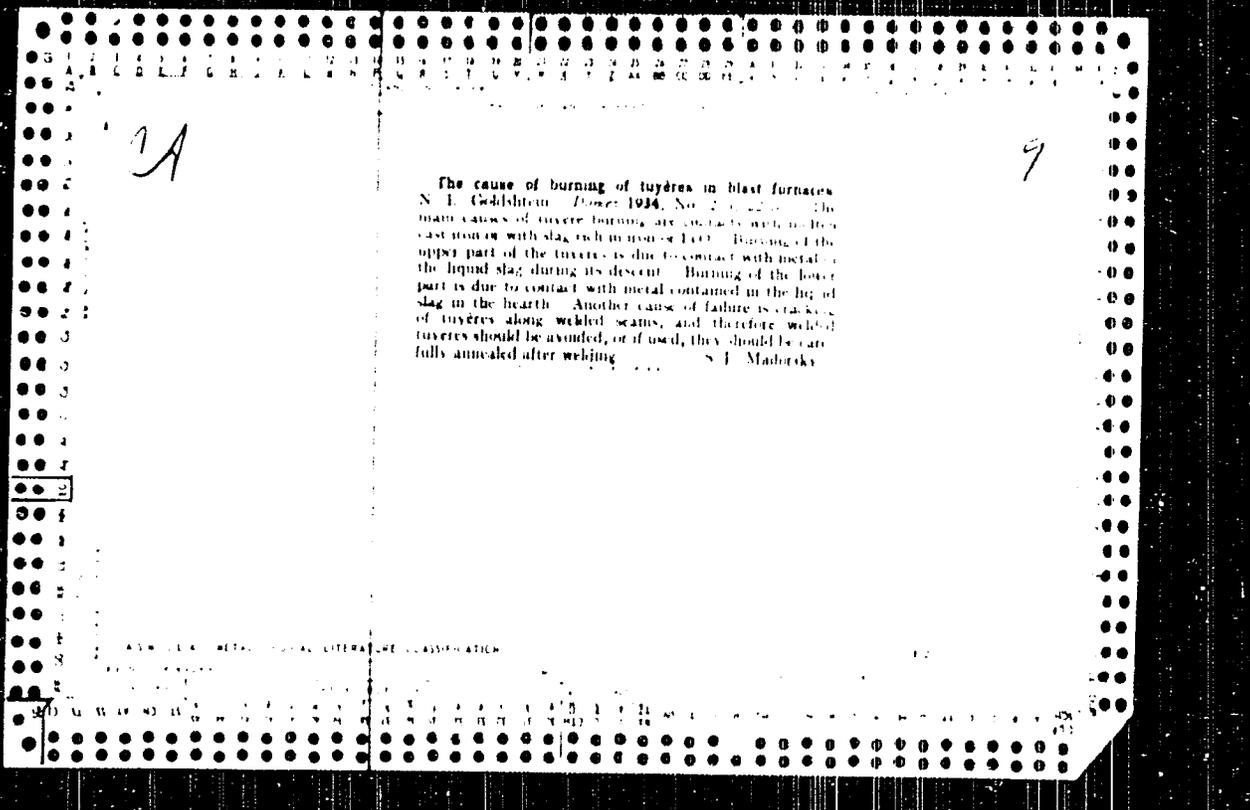
(MIRA 13:12)

SKOGORHODOV, N.Ye., prof. oiv. red.; AGAPOV, V.F., prof. po  
nauchnoy rabote, dots., red.; BOYARSHINOV, M.I., prof.,  
red.; VESSELOVSKAYA, Ye.S., red.; BAGHNI-KOPI, A.S., red.;  
GOL'DSHTEYN, N.A., red.; IVANOV, N.I., kand. tekhn. nauk,  
dots., red.; KORZH, E.S., prof., red.; IERNOV, V.M., dots.,  
kand. ekhn. nauk, red.

[70 years of the Magnitogorsk Mining and Metallurgical  
Institute] XXX let MGMI. Magnitogorsk, 1962. 170 p.  
(MIRA 17:3)

1. Magnitogorsk. Gorno-metallurgicheskii institut.
2. Sekretar' partiynogo byuro Magnitogorskogo gorno-metallurgicheskogo instituta (for Petrov).
3. Dekan metallurgicheskogo fakul'teta Magnitogorskogo gorno-metallurgicheskogo instituta (for Ivanov).
4. Zaveduyushchiy kafedroy fiziki Magnitogorskogo gorno-metallurgicheskogo instituta (for Korzh).
5. Zaveduyushchiy kafedroy obrabotki metallov davleniye Magnitogorskogo gorno-metallurgicheskogo instituta (for Boyarshtinov).

[Faint, illegible text, possibly bleed-through from the reverse side of the page]





GOL'DSHTEYN, N. L.

PA 43/43T79

USSR/Metals

Mar 1948

Metallurgy  
Ore Dressing

"Neutralization of Magnitogorsk Ores," N. L. Gol'dshveyn, Candidate Tech Sci, Magnitogorsk Mining-Metal Inst, 4½ pp

"Stal'" No 3

Neutralization of Magnitogorsk ores, process particularly necessary regarding lower horizons and sulfide ores, can be organized with present-day mechanized ore yards, as well as by means of mixing at the mine with plan for reasonable working of the mine and construction of efficient ore-distributing stations.

43T79

UNITED STATES OF AMERICA

Department of State

Office of the Secretary of State

Washington, D.C. 20520-1204

CA

9

Increasing the resistance of blast-furnace hearth  
I. Gol'dshteyn, *Sov. B.* 119, 21 (1948). To prevent  
breaks in the hearth it is suggested to provide a refractory  
layer between the lining and the cooling plates. This  
layer should be of highly refractory slag-resistant carbide  
nitride material or of highly conductive metallic material,  
e.g., ferrites. M. Hosh

AUTHORS: Gol'dshteyn, N.L., Khromchenko, N.S. 32-11-48/60

TITLE: A Device for the Determination of the Ability for Regeneration of Agglomerates (Ustanovka dlya opredeleniya vosstanovimosti aglomeratov)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp. 1391-1392 (USSR)

ABSTRACT: In this paper a device is recommended which is said to be adapted to the conditions of industrial production. Samples were dealt with in powdery condition. As a regenerator-gas hydrogen was used, which was obtained by electrolysis. As a cathode a cylindrical vessel, which could be sealed, was employed, the lateral parts of which were perforated and covered with asbestos. Thus, the purest hydrogen with an oxygen content of not more than 3% was obtained. Further purification is carried out by means of filtration with copper oxide powder and a tube furnace. According to the scheme given the device consists of 2 manostats (apparently a pressure stabilizing device), a rheometer, a shiftable furnace, a quartz reaction tube with 10 mm diameter, a heater, and a regulating valve for the regulation of hydrogen supply. Constant supply of hydrogen is attained by fitting 2 manostats (see above). Uniform heating of the sample is attained by first heating a shiftable furnace on one side, which is then pushed over the reacting

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32-11-48/60

A Device for the Determination of the Ability for Regeneration of Agglomerates

tube containing the powdery sample. After heating of the sample gas supply is turned on. The results are determined either according to the loss of weight of the sample or according to the increase of weight of the moisture absorber. For precise weighing the "AQB-200" device is recommended. In practice the following experimental data were determined: agglomeration powder sample 2 g, temperature of the shiftable furnace 600<sup>o</sup>, duration of regeneration 10 minutes, gas consumption 285 ml/min, duration of experiment 35 minutes. There is 1 figure and 1 Slavic reference.

ASSOCIATION: Magnitogorsk Institute for Mining and Metallurgy imeni G.I.Nosov  
(Magnitogorskiy gorno-metallurgicheskiy institut im. G.I.Nosova)

AVAILABLE: Library of Congress

Card 2/2

SOV/137-58-8-16379

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 22 (USSR)

AUTHORS: Gol'dshteyn, N.L., Khromchenko, N.S.

TITLE: The Reducibility of the Magnitogorsk Agglomerates (Vosstanovimost' magnitogorskiikh aglomeratov)

PERIODICAL: V sb.: Domentovoe proizvodstvo, Moscow, Metallurgizdat, 1958, pp 3-15

ABSTRACT: A rapid method of determination of the reducibility (R) of agglomerates with electrolytic  $H_2$  (0.3%  $O_2$ ) was investigated on the installation of the Magnitogorsk Mining and Metals Institute with a horizontal quartz reaction tube 10-12 mm in diam. at 500-650°C, 0.132-4.75 cm/sec speed of the stream of gas, a powdered 2-g test sample and ten-minute duration of the experiment (30-35 min. with the auxiliary operations). The investigation of the R of powdered test samples of agglomerates (125 specimens) with 50.7-61.7% Fe, 12-29% Fe-O, and a basicity from 0.25 to 1.58 (R from 27 to 45%) shows that the powdered weighed sample obtained by the pulverization and the cutting down of the initial sample of the agglomerate is more representative than the weighed sample of the coarse

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SOM 137-58-8-16379

The Reducibility of the Magnitogorsk Agglomerates

fraction of the same sample. The rapid method of determination of R can be recommended for mass-production tests. The variation in the FeO contents of the agglomerate has a greater effect on the R than the variation in the basicity. A relationship exists between the R of the agglomerate and the  $Fe^{2+} / Fe_{tot}$  content ratio in it. Bibliography: 17 references.

N. L.

L. Oren--fr. Inzhin. ... Rytirgen-- ...

Card 2/2

3 X/133-31-1-1/85

AUTHORS: Gol'dshcheyn, M.L., Candidate of Chemical Sciences,  
Docent and Kirshchuk, A.B., Assistant

TITLE: Properties of Fluxed Sinter (Sputer) Spetsial'nykh  
aglomerata)

PERIODICAL: Stal', 1978, nr 7, pp. 100-101 (USSR)

ABSTRACT: The investigation was carried out in order to determine concentrations of carbon in sinter (in the initial state) by a method of reduction and metallographic treatment conditions and in order to obtain kinetic characteristics of the reduction process. About 100 samples of industrial sinters, mainly fluxed, from Magnitogorsk and Krivoy Rog ores of various chemical composition (Table 1) were tested. The reduction experiments were carried out on powdered samples with hydrogen as a reducing medium at a temperature of 600 °C. The apparatus, experimental procedure and the method of treatment of the experimental results were previously described (Refs 1, 2 and 3, respectively). The reduction of powdered samples which are combined into complex sinter samples and solutions was determined in order to obtain 100% reduction of the final stage of reduction after 100 minutes of the

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Properties of Fluxes Silver

37/10/1952/10

duration of an experiment (Table 1 and Figure 1). The reduction rates were determined on the basis of the consumption of hydrogen ( $\text{ml/ml}$ ) and the reducibility of silver was characterized by the apparent velocity constant. The latter was determined in the time interval of the 20th minute after the beginning of an experiment (at 30-50% reduction) which was obtained from the equation:

$$k = \frac{R_{20} \cdot 1}{d\tau \cdot (1 - E_{20})} \quad (1)$$

where  $k$  - apparent velocity constant,  $\tau$  - time from the beginning of experiments and  $E_{20}$  - the degree of

reduction attained at the 20th minute from the beginning of the experiment in relative units  $\text{ml H}_2/\text{ml Ag}$  was

graphically determined from the velocity curve (Figure 2).

It is pointed out that the use of the above criterion for the comparison of the reducibility of silver is justified, as it reflects the rate of partial and silver up to about 70%, which is sufficient, as the production of indirect reduction in blast furnaces does not reach this value.

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Properties of Molten Sliter

10/1/68-10/1/68

The relationship bet. the apparent velocity constant and basicity, FeO content and  $(Fe^{3+}/total\ Fe)$ , 100 is shown in Figure 5 and Molten Sliter characteristics of some sinters are given in Table 4. It is concluded that: in sinters, iron oxides are present in two completely differing states - "free" and "combined". The concentration of "combined" iron oxides is determined mainly by the concentration and the composition of gaseous atmosphere in sliter and is practically independent of the content of FeO, providing it does not exceed 24-25%. The proportion of oxygen in "combined" iron oxides usually does not exceed 10-15% and is independent of sliter's basicity. Combined iron oxides in sliter are reduced in most furnaces by direct reduction (by indirect reduction, which removes 1 and 62-67% of oxygen, only a part of free oxides is reduced). The reducibility of sinters is primarily determined by the state of iron oxides - their absorption-chemical activity and conductivity for interaction with gases. These factors depend mainly on the temperature - thermal level of sintering process and the composition of atmosphere which can be approximately evaluated by the parameter

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Properties of Fluid Sinter

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of sinter in the total amount of iron. The content of fayalite and other oxides in the sinter minerals is not directly related to sinter reducibility as its kinetic characteristics. The relationship between these two factors is observed only at a constant sinter temperature thermal level of sintering. In this case, as the proportion of sinter iron and the amount of iron oxides is simultaneously increased, a decrease in the reducibility of sinter has little direct influence on its reducibility. The dependence observed in practice can be explained by the fact that an increase in sintering rate is accompanied by a decrease in the level of sintering. The following references are referred to, 2 of which are English and 3 are Russian.

ASSOCIATION: Leningradskiy gosmetallurgicheskiy institut  
(Leningradskiy gosmetallurgicheskiy institut)

Card 4/2

1. Sintering--Effectiveness
2. Hydrogen--Applications

GOL'DSHTEYN, Nisou L'vovich; VOSKOBOYNIKOV, V.G., prof., doktor tekhn. nauk, retsenzent; NEKRASOV, N.K., dots., kand. tekhn. nauk, retsenzent; VATOLIN, N.A., kand. tekhn. nauk, retsenzent; LEPINSKIKH, B.M., retsenzent; POPEL', S.I., prof. doktor tekhn. nauk, red.; BUR'KOV, M.M., red. izd-va; TURKINA, Ye.D., tekhn. red.

[Short course on the theory of metallurgical processes] Kratkii kurs teorii metallurgicheskikh protsessov. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1961. 334 p. (MIRA 15:2)

(Metallurgy)

GOL'DSHEYN, N.L.

Reducibility of sinters. Izv. vys. ucheb. zav.; Chern. met.  
5 no.7:37-45 '62. (MIRA 15:8)

1. Magnitogorskiy gornometallurgicheskiy institut.  
(Sintering)

GOLDSHTEYN, N.L., *hand, tekhn. nauk, doklady*

Standard method of determining porosity. *ibid.* 1962. 111  
Ja 162. (1962) 111

1. Magnitogorskiy gornometallurgicheskiy institut.  
(Sintering)

SECRET

1. The information in this report is classified "Secret" because it contains information the disclosure of which would be injurious to the national defense.

2. Material appearing in this report is the property of the Central Intelligence Agency.

6. LIDSHITSYN, N.I.

Thermodynamic analysis of processes in the blast furnace in the presence of hydrogen. Izv.vys.ucheb.zav.: khim. nat. 5 no. 6:43-49, 1975. (NIRA 1848)

1. Magnitogorskii gornometallogorudnyy kombinat.

КОЗЛОВСКИЙ, М. М.

Sooruzhenie zoolianovo poloina v zimnei vremia. [Construction of earth roads in winter time]. Moskva, "Sovetskoye Radio", 1949. 162 p.

DTIC: Static unclass.

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

DAVYDOVA, T.N.; GOL'DSHTEYN, P.L.

Separating genetic types of deposits as a basis for lithogenetic studies of coal-bearing strata. Trudy Inst.geol.nauk. no.90:28-44 (MLRA 9:11)  
:47.

(Coal geology)

GUTTSAYT, Z.I.; KRAVCHENKO, V.A.; NIKITIN, N.S.; PANICHEVA, A.G. Prini-  
mali uchastiyu: GOL'DSHTEYN, R.L.; PANKRATOVA, O.M.; SAGAKSKAYA,  
V.G. KORYAGIN, I.D., kand.ekonom.nauk, red.

[Petroleum industry of the capitalist countries of Western  
Europe, the Near, Middle, and Far East, Canada, and Latin  
America] Neftianaya promyshlennost' kapitalisticheskikh stran  
Zapadnoi Evropy, Blizhnego i Srednego Vostoka, Dal'nego Vostoka,  
Kanady i Latinskoj Ameriki; kratkij obzor statisticheskikh dannyx.  
Pod red. I.D.Koriagina. Moskva, 1959. 302 p.

(MIRA 13:11)

1. Moscow. Gosudarstvenny nauchno-issledovatel'skiy institut  
nauchnoy i tekhnicheskoy informatsii.  
(Petroleum industry)

BERG, P.D.; GOL'DSHTEYN, R.I.; ZEL'KIND, Ye.M.; TOMASHPOL'SKIY, L.M.;  
FEDOROV, I.V.; IVANOV, V.A.; CHEKULAYEVA, Yu.I.; KURCVA, E.A.,  
red.; NIKOLAYEVA, Ye.A., ved. red.; MASLOV, Ya.M., tekhn. red.

[Petroleum refining in capitalist countries; statistical studies]  
Neftepererabatyvaiushchaia promyshlennost' kapitalisticheskikh  
stran; statisticheskii sbornik. Moskva, Vol.1. [Petroleum  
refining and petroleum products] Pererabotka nef'ti i proizvodstvo  
nefteproduktov. 1960. 219 p. Vol.2. [Consumption, transportation,  
and storage of petroleum and petroleum products] Potreblenie,  
transport i khranenie nef'ti i nefteproduktov. 1961. 323 p.  
(MIRA 15:6)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut na-  
uchnoy i tekhnicheskoy informatsii.  
(Petroleum--Refining) (Petroleum industry--Statistics)

GOLDSHTEYN, A.I.; ZEL'KIND, Ye.M.; TSEVTLIN, S.I.; CHEKULAYEVA,  
Yu.I.; KUROVA, E.A., ved. red.; ZOLOV'YEVA, S.S., ved.  
red.

[Petroleum refining abroad; a statistical and economic  
collection] Neftepereperabotka za rubezhor; statistiko-  
ekonomicheskii sbornik. Moskva, TsNIIIEIneftogaz, 1963.  
112 p. (MIRA 17:12)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut  
informatsii i tekhniko-ekonomicheskikh issledovaniy po nef-  
tyancy i gazovoy promyshlennosti.

GOL'DSHTEYN, R.I. (Dnepropetrovskaya oblast')

Treatment of schizophrenia patients persistently refusing food.  
Vrach. delo no. 9:147-148 S'63. (MIRA 16:10)

1. Igrenskaya psichonevrologicheskaya bol'nitsa.  
(SCHIZOPHRENIA)

L 08071-67 EWP(c)/EWT(m)/EWP(w)/EWP(v)/EWP(j)/EWP(L)/EPI ICP(c) ...  
ACC NR AP6034145 SOURCE CODE: UR/0424/66/000/005/0093/0102

AUTHOR: Gol'dshteyn, R. V. (Moscow)

ORG: none

TITLE: On steady motion of a crack along a rectilinear interface of two bonded elastic materials

SOURCE: Inzheeruyy zhurnal. Mekhanika tverdogo tela, no. 5, 1966, 93-102

TOPIC TAGS: crack propagation, stress distribution, ~~interface-crack~~, ~~crack-edge-vibration~~

ABSTRACT: The stress distribution around the head of a crack in its steady motion along the interface of two different elastic materials bonded together is discussed by investigating the problem of motion of a "semi-infinite" crack with a constant velocity along the rectilinear boundary of two different homogeneous isotropic, elastic half-spaces under conditions of plane deformation. It is assumed that equal concentrated forces of opposite directions are applied to the edges of the crack and are moving with the same velocity as the point of the crack so that the distance between the point and forces remains constant. The crack propagation rate is supposed to be lower than the velocity of

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L 08071-67

ACC NR: AP6034145

sound (and of transverse stress waves) in the materials of both half-spaces. Fourier transformation of boundary and cohesion conditions with respect to the coordinate along the direction of crack propagation is used, and the solution is reduced (by applying the conventional technique of the Wiener-Hopf method) to that of the Riemann-Hilbert problem with piecewise-constant coefficients for a system of functions. The effects of the surface wave velocities in both half-spaces and of the crack-propagation rate on the stress intensity are analyzed in detail, and the interdependence between stresses, elastic constants of materials, and the propagation of the crack point is established. The vibratory character of stresses and displacements at the head of the crack is also discussed, as well as the finiteness of stresses, their sinusoidal distribution and singularity, the flow of energy, and the steady propagation of the crack. Orig. art. has: 33 formulas.

SUB CODE: 20/ SUBM DATE: 13Apr66/ ORIG REF: 010/ OTH REF: 008/  
ATD PRESS: 5102

Card 2/2 *plu*

ACCESSION NR: AP3014921

S/0207/63/000/005/0062/0068

AUTHORS: Gol'dshteyn, R. V. (Moscow); Salganik, R. L. (Moscow)

TITLE: On cracks advancing between flat plates along the rectilinear boundary of a glued joint

SOURCE: Zhurnal prikl. mekhaniki i tekhn. fiziki, no. 5, 1963, 62-68

TOPIC TAGS: rectilinear crack, glued joint, flat plate glued joint, equilibrium crack propagation, crack wedging

ABSTRACT: In the problem in the title, the form of the crack and distribution of cohesion forces in the end regions of the quasi-statically advancing end do not depend on the applied loads (hypothesis of autonomy of the end region). A crack advancing along the boundary of a joint between two elastic materials has these properties only in very special cases. In the general case its behavior is different. In the end region of such a crack due to bulging, one edge presses against another as a result of the difference in the properties of the substances. Where they press, there are reaction forces which affect the moving end of the crack. Thus there is no local symmetry in the general case. Near the end of the extended crack there arise both tangential and normal stresses. Nevertheless, if the plates

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ACCESSION NR: AP3014921

where the edges touch are concentrated only near the ends of the crack, then the autonomy hypothesis can be generalized. This generalized hypothesis turns out to be equivalent to the assumption of constant working, which leads to distribution in a small end region of the forces of interaction of opposite edges of the crack with formation of a unit length of crack. For experimental verification of the admissibility of such an assumption, it is necessary to obtain some results from it. Thus, the authors study two problems on crack propagation along the rectilinear boundary of a joint: the first on a crack stretched by given normal stresses, and the second on splitting along the boundary by a rigid, smooth, semi-infinite wedge of constant thickness. For the first problem it is concluded that as the load  $P$  increases, the length of the crack  $l$  remains unchanged until  $P$  attains a value corresponding to a given length  $l$  along the curve  $l(P)$ . If  $l$  is sufficiently small, then, once  $P$  attains the indicated value, there begins a quasi-static increase in the length of the crack along the curve  $l(P)$ . In the framework of the generalized autonomy hypothesis this increase can be detected only up to values of  $l$  somewhat exceeding  $l_1$  which corresponds to the point of intersection of the line  $S$  with the curve  $l(P)$  (see Fig. 1 on the Enclosure). In the regions of such values of  $l$ , the dependence  $l(P)$  is unique. For the second problem, the length of free crack  $l$  is proportional to the square of the thickness of the wedge  $2h$ . If the elastic properties of the joined substances were identical, then the wedge

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ACCESSION NR: AP3014921

would extend into each of them at the value  $h$ . The qualitative and quantitative results obtained by the authors can be verified experimentally. Using these results, one can find experimentally the specific surface energy  $\gamma$  and check whether it is constant when the exterior parameters change. "The authors thank G. I. Berenblatt for proposing these problems and his constant attention to this work. They also thank S. S. Grigoryan for discussing the results of the work." Orig. art. has: 18 formulas and 1 figure.

ASSOCIATION: Institut mekhaniki NGU (Institute of Mechanics, Moscow State University)

SUBMITTED: 14Jun63

DATE ACQ: 27Nov63

ENCL: 01

SUB CODE: AP

NO REF SOV: 011

OTHER: 000

Card 3/4

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Feb EM  
ACCESSION NR: AP5014938

UR/0040/65/029/003/0516/0525

AUTHOR: Gol'dshteyn, R. V. (Moscow)

32  
29

TITLE: Rayleigh waves and resonance phenomena in elastic bodies

8

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 3, 1965, 516-525

TOPIC TAGS: wave propagation, stress analysis, stress distribution, Rayleigh wave, elastic wave

ABSTRACT: An approach to several cases of the problem of stress pulse propagation along the face of a semi-infinite elastic solid is presented. In elastic half-space, yz free from initial stress is considered. At some moment  $t = 0$ , a normal compression loading  $q$  at a point  $x \leq 0$  of the boundary  $y = 0$  is applied. The load intensity moves with a constant velocity  $q$  in the positive  $x$ -coordinate direction, and  $V$  is less than the velocity of propagation of transverse sound waves. The author uses the Heaviside function  $H(\xi)$  and the unstressed initial state to establish the limiting conditions  $\sigma_y = -qH(Vt - x)$ ,  $\tau_{xy} = 0$  for  $y = 0$ .

where  $\sigma_y$  is the one-dimensional ( $y$ -direction) stress. This formulation of the problem is solved by the method used by Dang Dinh Ang (Elastic waves generated by a

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ACCESSION NR: AP5014938

force moving along a crack, J. Math. and Phys, 1960, vol. 38, No. 4; Transient motion of a line load on the surface of an elastic half plane, Quart. Appl. Math. 1960, vol. 18, No. 3). From the solution, the author concludes that a static load propagation and distribution are not possible with a Rayleigh load velocity condition, but that the stationary distribution does exist without Rayleigh load propagation. Discussion and state-describing equations are given for both cases of load velocity corresponding and not corresponding with  $V_R$  - the Raleigh velocity.

Separate consideration is given to the occurrences of "sub-Rayleigh" and "super-Rayleigh" velocities. The author expresses thanks to G. I. Baranblatt for stating the problem and directing the work, and also to Y. M. Entov and R. I. Salganik for assisting in the work. Orig. art. has: 21 equations and 3 figures.

ASSOCIATION: none

SUBMITTED: 05Feb65

ENCL: 00

SUB CODE: AS, DP

NO REF SOV: 004

OTHER: 007

124  
Card 2/2

MEN'SHAKOV, Pavel Gennadiyevich; GOL'DSHTEYN, S.A., red.; CHUMAYEVA,  
Z.V., tekhn.red.

[Pharmacology] Farmakologiya. Izd.4, ispr. i dop. Moskva,  
Gos.izd-vo sel'khoz.lit-ry, 1960. 279 p.

(MIRA 13:6)

(PHARMACOLOGY)

ASTAKHOV, Ivan Ivliyevich, kandidat sel'skokhozyaystvennykh nauk; RUDAKOV,  
Aleksandr Ivanovich, kandidat sel'skokhozyaystvennykh nauk;  
GOL'DSHTAYN, S.A., redaktor; CHUNAYEVA, Z.V., tekhnicheskiiy redaktor

[Keeping swine in field shelters and pastures] Lagerno-pastbishchnoe  
soderzhanie svinei v severo-zapadnoi zone nechernozemnoi polosy  
SSSR. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 79 p. (MIRA 9:8)  
(Swine--Feeding and feeding stuffs)

VOLKOPYALOV, Boris Petrovich, professor; GOL'DSMTEYN, S.A., redaktor;  
CHUMAYKVA, Z.V., tekhnicheskiy redaktor

[Swine breeding] Svinovodstvo. Izd. 2-oe, perer. Moskva, Gos. izd-vo  
selkhoz. lit-ry, 1956. 263 p. (MLRA 10:1)  
(Swine breeding)

GUBAREVICH, Yakov Grigor'yevich, professor; GOL'DSHTEYN, S.A., redaktor;  
CHUNAYEVA, Z.V., tekhnicheskii redaktor

[Veterinary obstetrics and gynecology] Veterinarnoe akusherstvo i  
ginekologiya. Izd. 3-e. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956.  
400 p. (MLRA 9:11)  
(Veterinary obstetrics)

ASTANIN, Petr Petrovich, prof., zasluzhenny deyatel' nauki RSPSR; UZYUMOV,  
Vasiliy Lavren'd'yevich, kand.veterinarnykh nauk; KOVYEDIKOV, Mikhail  
Semenovich, kand. veterinarnykh nauk; GOL'DSHTEIN, S.A., red.;  
CHUHAYEVA, Z.V., tekhn.red.

[Biochemistry] Biokhimiia.Pod obshchei red. P.P.Astanina. Moskva,  
Gos.izd-vo sel'khoz. lit-ry, 1957. 167 p. (MIRA 11:3)  
(BIOCHEMISTRY)

Гол'дсхтейн, С.А.

KUZNETSOV, Georgiy Sergeyeovich, prof., doktor veterinarnykh nauk;  
GOL'DSHTEYN, S.A., red.; MOLODTSOVA, N.G., tekhn.red.

С.А. Гол'дсхтейн

[Pathology of the hoof of farm animals] Zabolevaniia kopyt  
sel'skokhoziaistvennykh zivotnykh. Moskva, Gos.izd-vo  
sel'khoz.lit-ry, 1957. 189 p. (MIRA 11:1)  
(Hoofs--Diseases)

BOGDASHEV, Nikolay Filippovich, professor; YELISEYEV, Arkadiy Pavlovich, dotsent; GOL'DSMYIN, S.A., redaktor; CHUNAYEVA, Z.V., tekhnicheskii redaktor

[Mammary glands of Livestock] Molochnye zhelezy sel'skokhoziaistvennykh zhivotnykh. Izd. 2-oe, perer. i dop. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 223 p. (MLRA 10:7)  
(Mammary glands)

*Chernyak, Valentin Zakharovich*  
CHERNYAK, Valentin Zakharovich; GOL'DSHTEYN, S.A., red.; MOLODTSOVA, N.G.,  
tekhn.red.

[Pathoanatomical diagnosis of communicable diseases of farm  
animals] Patologoanatomicheskaya diagnostika infektsionnykh  
zabolevaniy sel'skokhoziaistvennykh zhivotnykh. Izd. 2-e,  
ispr. i dop. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 286 p.  
(Communicable diseases in animals) (MIRA 11:4)  
(Veterinary medicine--Diagnosis)

SHAKALOV, Karp Iovich, prof., doktor veterinarnykh nauk; GOL'DSHTEYN, S.A.,  
red.; CHUNAYEVA, Z.V., tekhn.red.

[Pathogenetic therapy in diseases of animals] Patogeneticheskaya  
terapiya zabolevanii zivotnykh. Moskva, Gos.izd-vo sel'khoz.  
lit-ry, 1952. 317 p. (MIRA 10:12)

(Veterinary medicine)

PROTASOV, A.I., dotsent; GOLITSKIY, S.A., redaktor; BOLGOV, G.N.,  
redaktor; CHUMAYEV, P.V., tekhnicheskiy redaktor

[Manual for veterinary assistants] Spravochnik veterinarnogo  
fel'dshera. Moscow, Gosizd-vo sel'khoz. lit-ry, 1957. 560 p.  
(Veterinary medicine) (M: 10:10)

KHOKHLOV, Anatoliy Leont'yevich; GOL'DSHTEYN, S.A., red.; CHUNAYEVA, Z.V.,  
tekhn. red.

[Diagnosis and treatment of obstruction of the esophagus in cattle]  
Diagnostika i lechenie zakuporki pishchevoda u krupnogo rogatogo  
skota, Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 87 p.  
(Esophagus--Foreign bodies) (MIRA 11:9)  
(Cattle--Diseases)

GUBAREVICH, Yakov Grigor'yevich, prof.; IVANCHIKOV, Mikhail Fedorovich,  
kand.vet.nauk; GOL'DSHTEYN, S.A., red.; CHUNAYEVA, Z.T., tekhn.red.

[Practical manual on veterinary obstetrics, gynecology, and  
artificial insemination] Praktikum po veterinarnomu akusherstvu,  
ginekologii i iskusstvennomu osemneniiu. Moskva, Gos.izd-vo  
sel'khoz.lit-ry, 1958. 149 p. (MIRA 12:5)  
(Veterinary obstetrics) (Artificial insemination)

KUZMIN, Vitaliy Vasil'yevich; GOL'DSHTEYN, S.A., red.; CHUMAYEVA, Z.V.,  
tekhn.red.

[Veterinary microbiology] Veterinarnaya mikrobiologiya. Moskva,  
Gos. izd-vo sel'khoz. lit-ry, 1958, 231 p. (MIRA 11:5)  
(Veterinary bacteriology)

FEDOTOV, Boris Nikovayevich, prof.; GOL'DSHTEYN, S.A., red.; CHURAYEVA,  
Z.V., tekhn. red.

[Veterinary sanitary examination and the technology of animal  
products] Veterinarno-sanitarnaya ekspertiza i tekhnologiya  
produktov zhitnovodstva. Izd. 3., ispr 1 dop. Moskva, Gos. izd-vo  
sel'khoz. lit-ry, 1958. 308 p. (MIRA 11:7)  
(Meat inspection) (Animal products)

BAZHENOV, Sergey Vasil'yevich; GOL'DSHTEYN, S.A., red.; CHEJNATINA, Z.V.,  
tekhn. red.

[Veterinary toxicology] Veterinarnaia toksikologiya. Izd.2.,  
ispr. i dop. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 392 p.  
(Veterinary toxicology) (Poisons) (MIRA 11:9)

BARANOV, Sergey Alekseyevich; GOL'DSHTEYN, S.A., red.; CHUNAYEVA,  
Z.V., tekhn.red.

[Canine distemper] Chuma sobak. Moskva, Gosizd-vo  
sel'khoz.lit-ry, 1959. 43 p. (MIRA 12:6)  
(Distemper)

KOKURICHEV, Pavel Ivanovich; ROTOV, Vyacheslav Ivanovich; GOL'DSHTEYN,  
S.A., red.; CHUMAYEVA, Z.V., tekhn.red.

[Tuberculosis in poultry] Tuberkulez domshnikh ptits. Moskva,  
Gos.izd-vo sel'khoz.lit-ry, 1959. 131 p. (MIRA 13:4)  
(Tuberculosis in poultry)

TSION, Robert Adol'fovich, prof.; GOL'DSHTEYN, S.A., red.; CHUNAYEVA,  
Z.V., tekhn.red.

[Infectious diseases of swine] Infektsionnye bolezni svinei.  
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 139 p.

(MIRA 13:5)

(Swine--Diseases)

KUZ'MIN, Vitaliy Vasil'yevich; PANKRATOV, Aleksandr Yakovlevich;  
SEFERSHAYEV, Memet Abduramanovich; SHAPOVALOVA, Anna  
Ivanovna; GOL'DSHTEYN, S.A., red.; BARANOVA, L.G.,  
tekhn.red.

[Practical lessons in veterinary microbiology] Prakticheskie  
zaniatia po veterinarnoi mikrobiologii. Pod red. V.V.Kuz'mina.  
Izd.2., ispr. i dop. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959.  
203 p. (MIRA 12:7)

(Veterinary bacteriology)

BOCHAROV, Ivan Aleksandrovich, prof.; GOL'DSHTEYN, S.A., red.; CHUNAYEVA,  
Z.V., tekhn.red.

[Internal noncontagious diseases of farm animals with principles  
of their diagnosis] Vnutrennie nezaraznye bolezni sel'skokho-  
ziaistvennykh zhivotnykh s osnovami diagnostiki. Izd.6., perer.  
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 472 p. (MIRA 12:9)  
(Veterinary medicine)

SEFERSHAYEV, Mamet Abduramanovich; SHAPOVALOVA, Anna Ivanovna; KUZ'-  
MIN, V.V., doktor vet.nauk, red.; GOL'DSHTEYN, S.A., red.; CHU-  
NAYEVA, Z.V., tekhn.red.

[Role of micro-organisms in stockbreeding] Rol' mikrobov v  
zhivotnovodstve. Pod red. V.V. Kuz'mina. Moskva, Gos. izd-vo  
sel'khoz.lit-ry, 1960. 101 p.

(MIRA 14:5)

(Veterinary microbiology)

L'VOV, Valeriy Mikhaylovich, dotsent; GOL'DSHTEYN, S.A., red.;  
CHUNAYEVA, Z.V., tekhn.red.

[Laboratory diagnosis of anaerobic diseases of farm animals]  
Laboratornaia diagnostika anaerobnykh zabolevaniy sel'skokho-  
ziaistvennykh zivotnykh. Izd.2. Moskva, Gos.izd-vo sel'khoz.  
lit-ry, 1960. 131 p. (MIRA 13:6)  
(Veterinary bacteriology)

ZHURAVEL', Aleksandr Aronovich; GOL'DSHTEYN, S.A., red.; CHUNAYEVA,  
Z.V., tekhn.red.

[Physiology of farm animals] Fiziologiya sel'skokhoziaistvennykh  
zhivotnykh. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 327 p.  
(Veterinary physiology) (MIRA 13:8)

TSION, Robert Adol'fovich, doktor veter. nauk, prof.; L'VEV,  
Valeriy Mikhaylovich, kand. veter. nauk, dots.;  
GOL'DSHTEYN, S.A., red.; BARANOVA, L.G., tekhn. red.

[Diseases of young farm animals] Bolezni molodniaka sel'sko-  
khoziaistvennykh zivotnykh. Moskva, Sel'khozizdat, 1963.  
294 p. (MIRA 16:8)

(Veterinary medicine)

VOLOSHIN, Ya.M., prof.; GOL'DSHTEYN, S.B., dotsent

Analysis of errors in the detection and treatment of surgical diseases of abdominal organs. Nov.khir.arzh. no.4:91-95 J1-Ag '59.  
(MIRA 12:11)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof.Ya.M.Voloshin) pediatricheskogo i sanitarno-gigiyenicheskogo fakul'teta i kafedra sudobnoy meditsiny (zav. - dotsent S.B.Gol'dshteyn) Odesskogo meditsinskogo instituta.  
(ABDOMEN--DISEASES)

GOL'DSHTEIN, S.B.

Sudden death following an injection of antibiotics. Sud.-med.  
ekspert. 6 no.2:21-24, Ap-Je'63. (MIA 16:7)

1. Byuro sudobmeditsinskoy ekspertizy (spetsial'nik-detsent  
S.B.Gol'dshiteyn) Odesskogo oblastnogo otdela npravookhraneniya.  
(ANTIBIOTICS)

TOCHILOV, V.I.; GOL'DSHTEYN, S.B.

Climatological zoning of Azerbaijan in the light of hygienic requirements. Dokl. AN Azerb. SSR 12 no.6:391-396 '56.

(MLHA 9:10)

1. Predstavleno akademikom AN Azerbaydzhanskoy SSR M.A. Useynovym.  
(Azerbaijan--Building)

1. AZERBAIJANIAN LIME  
AZERBAIJANIAN LIME

Further ways for efficient utilization of Azerbaijanian limestone  
for building purposes. Azerb. J. Eng. 1984, 18(1):15-19.  
(NERA 10:8)

1. Azerbayjanskiy pol'zovaniyem Institut, Predstavleno  
akademiku N. N. Zakharenko, 1984, 18(1):15-19.  
(Azerbaijan-Limestone) (Walls)

TOCHILOV, V.I.; GOL'DSHTEYN, S.B.

Establishing fuel norms for buildings in Azerbaijan according to  
the climatological zones of the republic. Dokl. AN Azerb. SSR 13  
no.9:1025-1029 '57. (MLRA 10:9)

1. Predstavleno akademikom AN Azerbaydzhanskoy SSR M.A. Useynovym.  
(Azerbaijan--Fuel)

GOL'DSHTEYN, S.B.; MAMEDZADE, K.M.

Problems in selecting a wall thicknesses in the Azerbaijan  
S.S.R. Dokl. AN Azerb. SSR 16 no. 6:615-620 '60.

(MIRA 13:10)

1. Institut arkhitektury i iskusstva AN Azerbaydzhanskoj  
SSR. Predstavleno akademikom AN Azerbaydzhanskoy SSR  
M.A. Useynovym.

(Walls)

GOLDSHTEYN, S.H.

Consultations as an important link in the educational process.  
Shor. metod. rab. Bel. politekh. inst. no. 1:25-30 '59.

(MIRA 14:1)

(Technical education)

GOLDSHTEIN, Samuil Mendelevich; PERELIS, Grigoriy Borisovich;  
ARSEN, V. Ye. A., eds., nauch. red.

[Use of peat in electric power engineering] Ispol'zovanie  
torfa v elektroenergetike. Minsk, Nauka i tekhnika, 1964.  
106 p. (MIRA 18:5)

ADDENDUM, U. S.

USSR/Electricity - Conductivity

Apr 51

"Investigation of Polarization of Barium Titanate by  
Method of Transverse Electric Field," M. S. Kosman,  
T. D. Goldshteyn, Leningrad State Pedagogical Inst

"Zhur Eksper i Teoret Fiz" Vol XXI, No 4, PP 528-531

Examn of effect of transverse elec fld on cond of  
highly conducting layers shows this effect does not  
consist in direct action of variation in concn of  
current carriers, but depends on secondary effect:  
mech deformation of layer, produced by space charge  
generated in the layer.

18ct43

LC



GOLDSHTEYN, T. Yu.

The Influence of Small Additions of Antimony on the Diffusion Front of Silver in Polycrystalline Copper. V. I. Arkharov and T. Yu. Goldshtein (Leningrad. Vest. S.S.S.R., 1949, 66, (6), 1113-1115). [In Russian]. The microstructure

of diffusion zones formed by diffusion across the surface of contact of two metals was studied and the width of diffusion zones was measured. Alloys containing 0.003, 0.01, 0.35, 2.3 and 4.7% Sb in Cu were prepared, the purity of the initial materials and of the products being checked by chemical spectroscopic methods. Specimens 6 x 6 x 30 mm. were prepared, the size of the crystals in each being controlled by suitable mechanical and thermal treatments. After the grain-size and structure of each specimen had been determined, a hole cylinder of Ag of suitable dia. was inserted. Diffusion of Ag was studied at 640°-700° C. and annealing times from 70 to 100 hr. The specimens were covered with a thick layer of fine charcoal to minimize oxidation during annealing; they were water-quenched. Microsections from the region of max. dia. were prepared, a soln. of 10% (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> 20% NH<sub>4</sub>OH, 70% H<sub>2</sub>O being used as etching reagent. The diffusion zone of Ag into alloys of Cu has a relatively straight front; grain-size of the alloy and Sb varies with the compn. and wedges extending down the intercryst. boundaries. With increasing grain-size the ratio of the length of the wedges to the average depth of the diffusion zone through the grain increases. With increasing Sb content, the diffusion front straightens, causing the wedges to become shorter and the average depth of the diffusion zone to become shorter and the wedge to become greater. At 4.7% Sb the depth of the diffusion zone is approx. 20 times that in pure Cu. For Ag diffusing into Cu-Sb alloys, the zone depth for a given compn. increases with decreasing grain-size; in the case of diffusion into pure Cu, grain-size has comparatively small effect on the zone depth. The appearance of the diffusion front shows that in the alloys of low Sb concentration, the velocity of diffusion is several times greater at the grain boundaries than through the body of the grain. Thus, there is a higher concentration of Sb at the surface of the grain than in the inner regions, especially at the lower overall concentrations of Sb. This argument is supported by the increasing depth of the diffusion zone with decreasing grain-size in alloys of the same compn. The shape of the diffusion zones in the alloys investigated shows that at higher Sb concentrations, the ratio of concentration at the surface to that at the center of the grain is nearer unity than in low-Sb alloys. These results are in accord with earlier ideas on the enrichment of surface layers of crystals. - Z. N. B.

Translation B-80360

Ther. Div.

GOL'DSHTEYN, T. YU.

✓ Influence of small additions of antimony on frontal diffusion of silver in polycrystalline copper. V. I. Arkharov and T. Yu. Gol'dshtein. *Trudy Inst. Fiz. Metall. Gorn. Fiz. Akad. Nauk S.S.S.R., Sbornik Rabot* 1950, No. 11, 81-9. —Theory of the effect of horophilic atoms is summarized, and its predictions are checked by diffusing, at 650-700°, Ag into spectroscopically pure Cu or Cu alloyed with 0.003-4.7% Sb. The diffused layer is examined after being etched with a  $NH_4OH-NH_4_2S_2O_8$  soln. The diffusion front of Ag into pure Cu is either uniform or slightly indented, but its diffusion into Cu-Sb alloys shows large wedges along grain boundaries which increase with the grain size, but become smaller with higher Sb concns., though the width of the diffusion zone grows from 22  $\mu$  for pure Cu to 455  $\mu$  for the alloy contg. 4.72% Sb. The space lattice of Cu is expanded by larger Sb atoms thus helping Ag diffusion. In low-Sb alloys, Sb concns. inside of the grains and at the boundaries differ because of its horophilic properties, and the rate of diffusion is greater also along grain boundaries, showing itself in wedges penetrating along the boundaries far ahead of the av. front. In small-grained samples the wedging effect is less pronounced on account of more pronounced sidewise diffusion, but the thickness of the diffusion layer is greater here.

J. D. Cal...

MG

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GOLDSHTEYN, T. Yu.

1950

... on the decomposition pro-  
 cess. V. I. Arkharov and T. Yu. Goldshtein, *Trudy Inst. Fiz. Metal. Ural. Univ. Akad. Nauk S.S.S.R., Spetsial. Rekol* 1950, No. 11, 104-13. A  
 Cu-Ag alloy contg. 5.91% Ag and aging rapidly with the  
 pptn. of a new phase was selected as the base material and  
 then alloyed with 0.12-0.26% of Sb, Be, Al, Sn, Cr, or Zn.  
 These alloys, homogenized for 12 hrs. at 780-800°, were  
 water-quenched, aged at 300-780° for from 2 min. to 10  
 hrs., and water quenched. They were polished and etched  
 with 5CuNH<sub>4</sub>Cl-120 ml. H<sub>2</sub>O + NH<sub>4</sub>OH for quenching  
 and with 15 g. (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub>-6 g. (NH<sub>4</sub>OH)-70 g. H<sub>2</sub>O for aged  
 specimens. The decomposition of these solid solns. always  
 started at the grain boundaries, but at 500° and above it  
 started within the grains as well. The rate of decompa. is  
 greatly increased by Sb and reduced by Be; Cd slightly ac-  
 celerates the process, but Al, Zn, and Sn have but little ef-  
 fect, and mostly at lower temps. J. D. Galt

1950

①

GOL'DSHEYN, T. YU.

✓ Chemical composition of the layer forming the surface of stony fracture of steel. V. I. Arkharov and T. Yu. Gol'dsheyn. *Trudy Inst. Fiz. Metall. Obrab. Plosh. Akad. Nauk S.S.S.R.* 1960, No. 11, 114-19. In hard steel the fracture follows the grain boundaries of the original austenite, and an epitaxial layer is formed that allows forming a closed gamma loop, having a higher solubility in a iron at high temp., and isophilic towards Fe, contributes to the fracture, Mn being representative of them. Analysis of the surface of specimens with normal and stony fracture made of steel with and without Mo showed that the surface of stony fracture contained 0.31-0.60% Mo, and that of normal fracture contained 0.15-0.20% Mo. Since the layer dissolved in etching was probably 500 times thicker than the Mo-enriched layer, Mo segregation is probable. J. D. Gal...

И. И. ДОШТОВ, Т. Ю.

УФЧХ/Металлургия - Рентгеновский анализ

1 FEB 52

Рентгеновский анализ изменения структуры в кристаллической фазе при старении  
сплавов, И. И. Доштов, Т. Ю. Милославская, Т. Ю. Милославская, Свердловск  
Ветеринарный институт механизации и электрификации сельского хозяйства

УФЧХ, Вып. 20, № 4, стр. 607-612

Статья, являющаяся частью систематического исследования старения сплавов, представляет результаты  
исследования структурных изменений в кристаллической фазе в начальных стадиях старения, до того  
как сплав достигнет своей максимальной твердости и постоянной решетки фазы. Исследован  
сплав с 1.0% Fe. Несколько рентгенограмм. Представлено докладом на  
Академии наук, 3 Дек 52.

Р. Шуга

POPOVINA, L.A.; GOL'DSHTEYN, T.Yu.; AGAROVA, M.P.; OKUREV, A.I.

Oxidation of covellite. Dokl. AN SSSR 140 no.4:826-828 U '61.  
(MIRA 14:9)  
I. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut vednyy  
promyshlennosti. Predstavlena akademikom S.I.Vul'fovichem.  
(Covellite)

ACCESSION NR: APL019807

S/0279/64/000/001/0058/0060

AUTHORS: Galimov, M. D. (Sverdlovsk); Gol'dshteyn, T. Yu. (Sverdlovsk)

TITLE: The problem of calcium germanates formation

SOURCE: AN SSSR. *Izv. Metallurgiya i gornoye delo*, no. 1, 1964, 58-60

TOPIC TAGS: calcium, calcium oxide, germanium, germanium oxide, calcium germanate, solid phase reaction, sintering reaction, oxidizing atmosphere, air, reducing atmosphere, carbon monoxide-carbon dioxide, x-ray analysis, composition of phases, thermogram, thermal effect

ABSTRACT: The objective of the investigation was to ascertain the possibility of producing calcium germanates by interaction between solid calcium and germanium oxides at temperatures below 1100C. Preliminary thermographic investigations were conducted on Kurnakov's FPK-57 pyrometer, using 2.5-6.0 gm CaO and GeO<sub>2</sub> in a 1:1 molar ratio. A number of thermal effects were observed. In the 150-450C range there occurred an endothermal effect caused by the loss of crystallisation water by the germanium dioxide. Another thermal effect (at 450-630C) was caused by the decomposition of calcium hydroxide. The weakly pronounced effects at 760-800C and

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ACCESSION NR: APL019807

1025-1050C resulted from the  $\text{GeO}_2$  and  $\text{CaO}$  interaction (confirmed by x-ray analysis). Further investigations of  $\text{GeO}_2$  and  $\text{CaO}$  interaction were conducted in the air, in equimolar ratio, under isothermal conditions, at 420, 650, 800, and 1100C, in periods of 5-35 hours. Analogous studies were conducted on a 1:2 molar ratio of the same ingredients at 1100C. It was established that a 5-hour sintering at all temperatures produced new phases with a characteristic complex of lines independent of the ratio of the oxides. Sintering calcium germanates for 4-9 hours at 1100C in an atmosphere of 15% carbon monoxide and 85% carbon dioxide destroyed all these phases, and formed a single new phase, as well as  $\text{CaO}$ . No line of either free germanium or of its dioxide could be detected. It was established that the single new line observed represented calcium germanate. A. A. Vostryakov and V. P. Volkov participated in the work. Orig. art. has: 1 chart, 1 table, and 1 formula.

ASSOCIATION: none

SUBMITTED: 11May63

DATE ACQ: 31Mar64

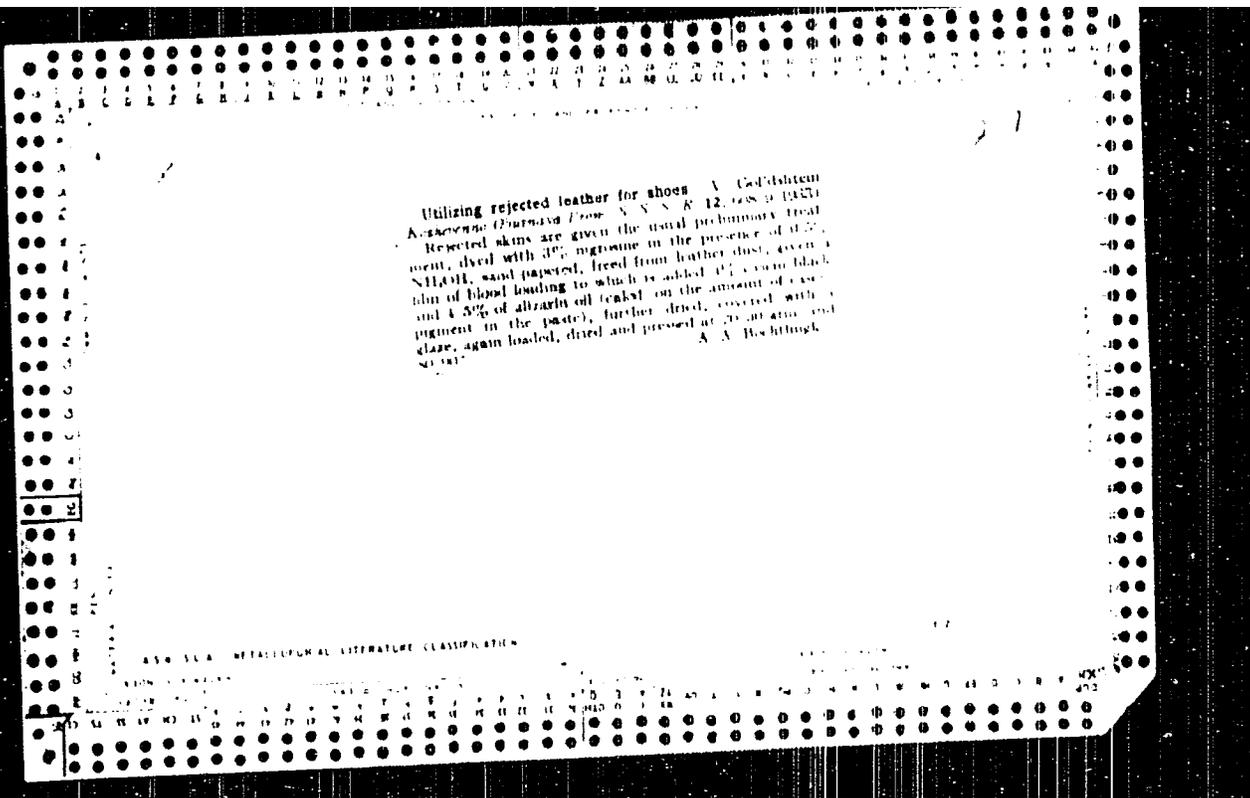
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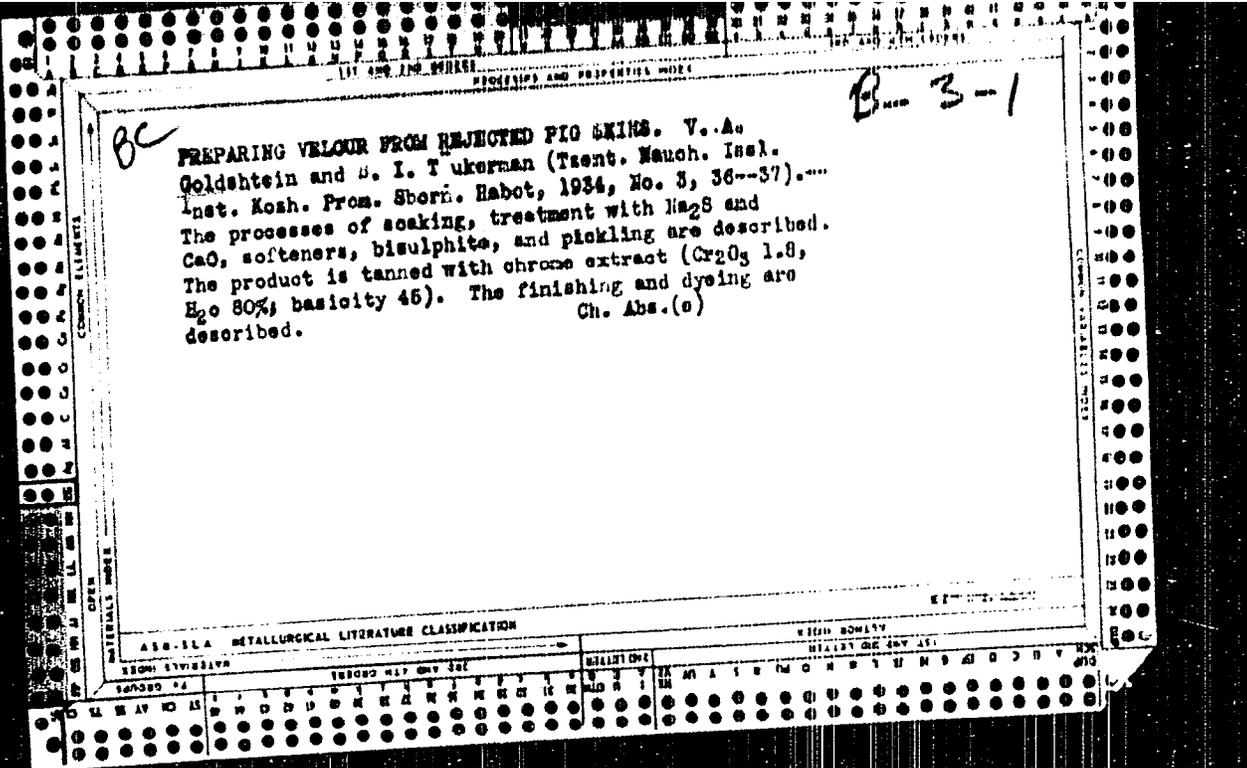
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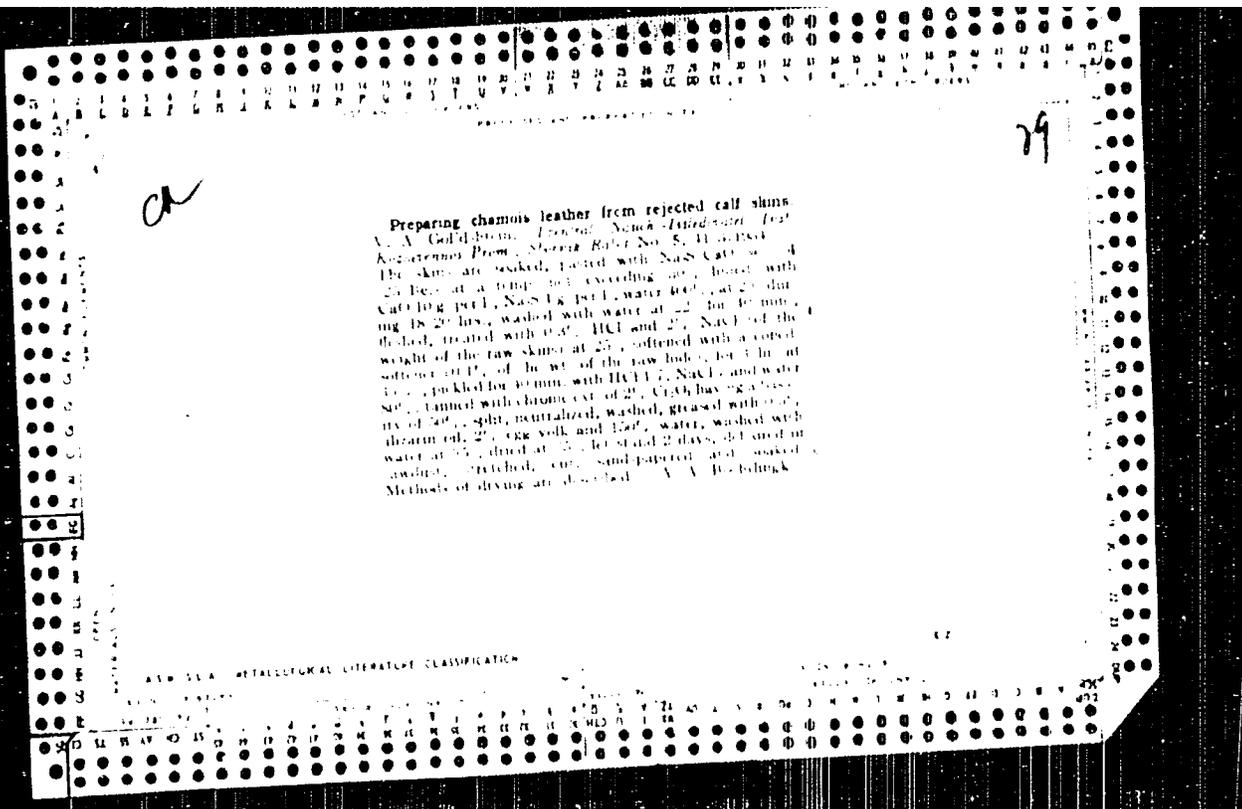
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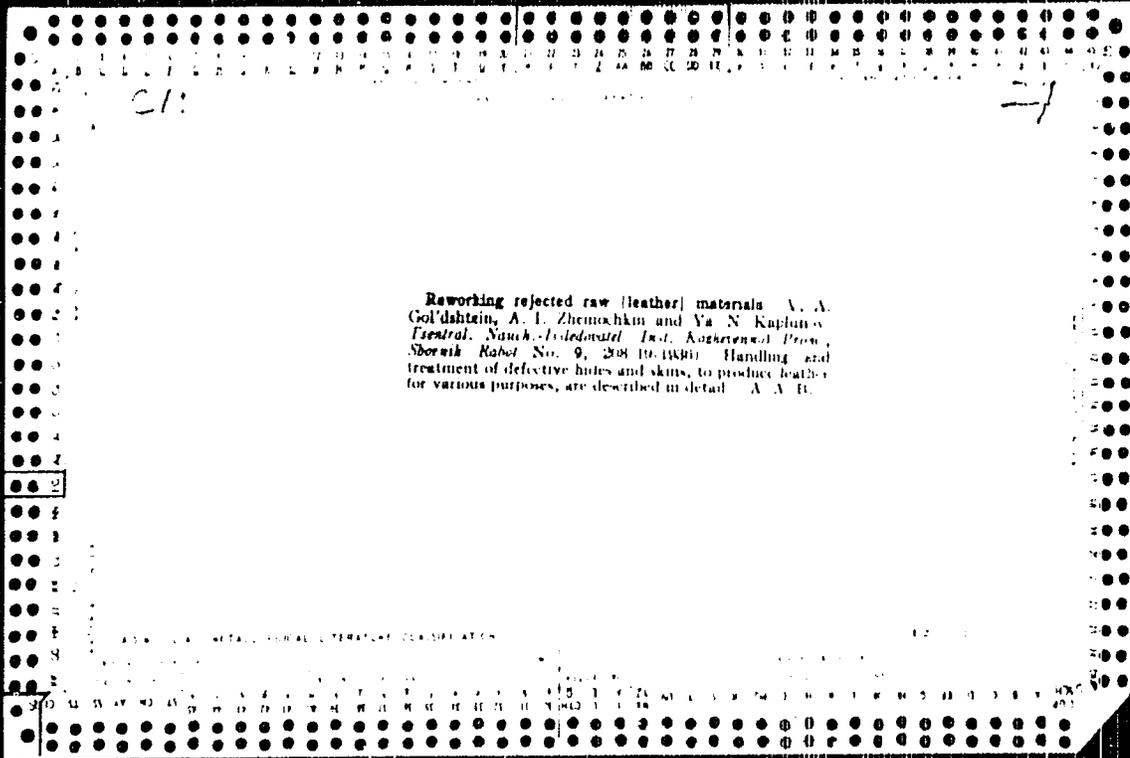
OTHER: 001

Card 2/2









GOLDSHTEYN, V. A.

✓ Dressing for hides. V. A. Goldshteyn, N. I. Sidorenko, and A. S. Fainlova. U.S.S.R. 103,772, Sept. 22, 1950. The dressing is made of a methacrylate emulsion and shellac to which is added Na alginato as a film-forming substance.

March

3

GOLD'SHTEYN, V.A.

Dyeing the bottom of footwear. V. A. Goldshtein, E. A. Pospelova, and V. P. Chudakov. *U.S.S.R.* 1971, 108, Nov. 26, 1969. The leather for the bottom of footwear is colored with a mixt. of casein, glycerol, an oil dispersion of vinylene dichloride (chlorovinyl copolymerization product) and the desired pigment. M. Kozel

AFANAS'YEV, N.G.; VYSOTSKAYA, N.A.; BELYKH, N. V.

Design of magnetic spectrometer with circular deflection. Prih.  
i tekhn. eksp. 8 no.5:29-33; 3-0 1957.

Aberration of a magnetic spectrometer with circular deflection.  
34-37 (MIRA 16:12)

1. Fiziko-eksperimental'nyy zhurnal. 1957. 34-37.

L 13748-65 AEDC(b)

ACCESSION NR: AP4047458

S/0120/64/000/0015/0048/0054

AUTHOR: Afanas'yev, N. G.; Vy'sotskaya, A. V.; Gol'dal'ts'yn, V. A.;  
Dem'yanov, A. V.; Startsev, V. I. B

TITLE: Magnetic spectrometer for electrons with energy up to 100 Mev

SOURCE: Pribory\* i tekhnika eksperimenta, no. 5, 1964, 48-54

TOPIC TAGS: spectrometer, magnetic spectrometer, magnetic spectrometer  
focusing

ABSTRACT: Design principles, construction, and experimental results obtained with a uniform-field double-focusing magnetic spectrometer are reported. By using circular borders, perfect horizontal focusing and satisfactory vertical focusing have been ensured; the measurement of nuclear-reaction products within  $22-158^\circ$  is possible; the magnet gap is 29 mm; the spectrometer input and output are equipped with magnetic shields. The design features of the spectrometer are

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ACCESSION NR: AP4047458

shown in Enclosure 1. The main windings are supplied by an 11-kw dynamo-electric amplifier. Resolution, for 2- and 4-mm-dia sources, is 0.2 and 0.4%, respectively; the capture angle in the median plane is  $18^\circ$ . Other design data is given. Calculation of horizontal aberrations is made up to the 4th order and vertical aberrations up to the 3rd order. Orig. art. has 9 figures and 4 formulas.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UkrSSR (Physico-Technical Institute, AN UkrSSR)

SUBMITTED: 12Nov63

ENGL: 01

SUB CODE: OP, NP

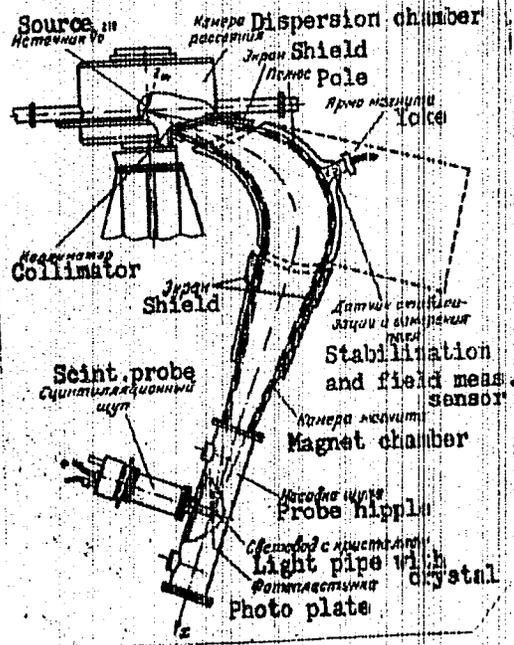
NO REF SOV: 004

OTHER: 005

Card 2/3

L 13748-65  
ACCESSION NR: AP4047458

Magnetic spectrometer and  
a counter for checking  
the focusing



ENCLOSURE: 1  
0

Card 3/3

ACCESSION NR: AP4033100

S/0120/64/000/002/0024/0028

AUTHOR: Afanas'yev, N. G.; Vy\*sotskaya, A. V.; Gol'dshcheyn, V. A.;  
Startsev, V. I.

TITLE: Using a double-focusing magnetic spectrometer for recording a wide  
part of an electron spectrum

SOURCE: Pribery\* i tekhnika eksperimenta, no. 2, 1964, 24-28

TOPIC TAGS: spectrometer, magnetic spectrometer, double focusing magnetic  
spectrometer, electron spectrum, nuclear science

ABSTRACT: A uniform-field spectrometer with a thick nuclear photoplate  
mounted along the focal line as a detector was used for recording a wide  
spectrum. Calculation and experimental verification of the focal line are given;  
horizontal and vertical aberrations are calculated; the vertical form of the  
spectral line for 2- and 4-mm-diameter sources was estimated and measured.

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ACCESSION NR: AP4033100

The resolution, aperture ratio, and line form of the spectrometer were accurately determined by the photo method. The resolution, 0.2 and 0.4%, and the aperture ratio,  $0.95 \times 10^{-2}$  and  $0.38 \times 10^{-2}$  ster, for the above sources, respectively, were found to be almost constant for the entire energy range and in good agreement with their estimated values. Orig. art. has: 9 figures, 16 formulas, and 3 tables.

ASSOCIATION: Fiziko-tehnicheskii institut AN UkrSSR (Physico-Technical Institute, AN UkrSSR)

SUBMITTED: 18May63

DATE ACQ: 11May64

ENCL: 00

SUB CODE: NS

NO REF SOV: 002

OTHER: 000

Card 2/2

GOL'DSHTEYN, V.D.

Clinical aspects of polyserositis. Vrach.delo no.10:1089 0'58  
(MIRA 11:11)

1. Ul'yanovskiy oblastnoy protivotuberkuleznyy dispanser.  
(SEROUS MEMBRANES--DISEASES)

GOL'DSHTEYN, V.D. (Moskva)

Concerning B.L. Mazur's article, "Clinical aspects and differential  
diagnosis of tuberculosis." *Kaz. med. zhur.* no. 4:100 J1-Ag  
'60. (MIRA 13:8)

(TUBERCULOSIS) (MAZUR, B.L.)

GOL'DSHTEYN, V.D.

Influence of treatment with cycloserine on vitamin B<sub>6</sub> and nicotinic acid metabolism. Probl. tub. 38 no.3:46 '60. (MIRA 14:5)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ye.Rabukhin) Tsentral'nogo instituta usovershenstvovaniya vrachey (dir. N.D.Kovrigina).  
(ISOXAZOLIDINONE) (TUBERCULOSIS)  
(PYRIDOXINE) (NICOTINIC ACID)